

Research on Traffic Congestion Issues and Strategies in Ethnic Areas from the Perspective of New Public Management Theory—A Case Study of Hezuo City in Gannan Prefecture

Lan Zhang*, Yuxin Cheng

School of Architecture, Southwest University for Nationalities, Chengdu Sichuan 610225, China

Email: 1208946295@qq.com

How to cite this paper: Zhang, Lan, & Cheng, Yuxin. (2025). Research on Traffic Congestion Issues and Strategies in Ethnic Areas from the Perspective of New Public Management Theory—A Case Study of Hezuo City in Gannan Prefecture. *Economics & Business Management*, 1(3), 15-23. ISSN Print: 3079-5214; ISSN Online: 3079-5222.

<https://doi.org/10.63313/EBM.9051>

Published: 2025-05-08

Copyright © 2025 by author(s) and Erytis Publishing Limited.

This work is licensed under the Creative Commons Attribution International License (CC BY 4.0).

<http://creativecommons.org/licenses/by/4.0/>



Abstract

With the continuous acceleration of urbanization, the per capita car ownership continues to increase, and the transportation demand in the old areas of county towns has sharply increased. However, due to various reasons, the existing road facilities have not been renovated or upgraded when managing the traffic in the old areas of the county town. Therefore, compared to the increasing demand for motor vehicles, the carrying capacity of the transportation facilities in the old areas of the county is insufficient. The frequent occurrence of traffic congestion has constrained the humanization and sustainable development of the old urban area of the county. This issue directly affects the vital interests of the general public, the evaluation of the government by the local people, and the travel experience of local residents. Therefore, actively exploring the problem of traffic congestion control in the old urban areas of counties is of great significance both in theory and practice.

Keywords

New Public Management Theory; Ethnic regions; Traffic congestion; operation-al research

1. Introduction

In recent years, with the high-quality development of society and economy, people's material life has been greatly improved, the per capita car ownership has grown rapidly, the contradiction between people and cars, cars and roads has become increasingly sharp, and traffic congestion has become more and more, making it a problem that must be solved in urban construction and development. The problem of traffic congestion affects people's normal life. According to the "14th Five-Year Plan", we have learned that there are many common problems in China's current traffic and some local unique problems. In the future, there are many difficulties to

be faced in the realization of China's transportation power, and complex forms require that we must have the courage and ability to find problems, solve problems and meet difficulties head-on. In the new era, the complicated causes of traffic congestion cannot be solved overnight. This paper takes the old urban area of Cooperative City of Gannan as an example, through the investigation of the causes of traffic congestion in the old urban area, detailed summary, through the analysis of data and congestion scenes in the urban area in recent years, to find the most fundamental causes of traffic congestion, and put forward targeted solutions to traffic congestion, improve the capacity and level of traffic disposal in the area, and promote the coordinated development of economic and social cooperation city. This research topic will further improve the theoretical system of road traffic congestion control in China, and provide a reference for ethnic towns in solving the problem of traffic congestion in county old cities.

2. Overview of related concepts

2.1. Traffic Congestion

At present, the definition of traffic congestion in the world has not yet formed a unified standard. Therefore, the definition of traffic congestion is different in different countries. There are mainly three definitions of traffic congestion. American definition: Speed below 22km/h, such a speed in the United States is the cause of traffic jams. Japan's definition: In 1994, when the Japanese Ministry of Construction formulated new traffic congestion measures, the definition of traffic congestion is: the number of congestion on the highway exceeds 15h.km/d, the length of waiting vehicles on the ordinary highway exceeds 1 km, or the traffic flow of the congestion time exceeds 10 minutes. Chinese definition: On October 1, 2020, China standardized traffic congestion according to the problem of road traffic congestion in the new period, and considered that the comparison of the carrying capacity and traffic demand under the current conditions of the road could not meet the traffic demand of vehicles, and the degree of traffic congestion was systematically divided into four categories, which were divided into I, II, III and IV. That is, serious congestion, moderate congestion, light congestion and smooth, the corresponding colors are red, orange, yellow and green.

No matter what kind of definition is adopted, in a sense, traffic congestion is that the carrying capacity of the road can not meet the needs of motor vehicles on the road, resulting in traffic congestion. Domestic and foreign scholars have studied the phenomenon of traffic congestion and found that there are two different forms of traffic congestion: one is that there is a certain regularity of traffic congestion, which can be inferred when and where traffic congestion will occur, and this phenomenon is caused by certain factors. The other is that there is a certain irregular phenomenon, and the specific time of its occurrence is difficult to predict, the cause of its production is external conditions and accidental reasons. All of these will cause congestion

in time and space, delay in time, economic losses, and psychological anxiety among people, which we must deal with as soon as possible.

2.2. New Public Management Theory

The new public management theory recognizes the importance of the function of "management" in the basic concept. In the new era, the function of "management" is essential to ensure a sustainable and stable state of social development and economic growth. Effective management can fully tap the potential of labor force and promote the rational use of organizational technology and information technology, so as to enhance organizational productivity. Therefore, to some extent, the high efficiency of an organization's work is brought about by the effective management in the organization. Management is a special and important function in the organization, and the "management authority" of the organization's managers must be reasonable and scientific. Different from the traditional management behavior, the guiding ideology of "new public management" theory is "let managers manage" and pursue professional and high-quality management. The new public management theory puts forward that the public sector can learn from good enterprise management methods and practices when carrying out management activities.

3. Analysis of Traffic congestion in ethnic areas

3.1. City Overview

Hezuo City is located in the northeast edge of Qinghai-Tibet Plateau, with Zhuoni County to the east, Luqu County to the south, Xiahe County to the west, and Linxia County and Linxia County to the north. It is the seat of the Gannan Tibetan Autonomous Prefecture and the political, economic, cultural, scientific and technological and financial center of the prefecture. The Tibetan transliteration of cooperation is "Heicuo", meaning the place where antelope live. In 1956, the cooperative town was established, approved by The State Council in May 1996, and the cooperative city was established in January 1998.

3.2. Road Traffic conditions

The cooperative city has a unique geographical position and obvious location advantages. It is an important commercial port town of the ancient "South Silk Road", and has been an important hub connecting Central Plains, Xishu and Amdo Tibetan areas since ancient times, known as the "South Silk Road Shambhala" reputation. It is 226 kilometers away from the capital city of Lanzhou, and the city is connected with Lanhe Expressway, National Highway 213, provincial highway 306, and other highways from Hehe to Yeili Pass. Xiahe Airport is 47 kilometers away from the city. With the construction of Lanhe and Xicheng Railway and the cooperation to Zhuoni and Luqu Expressway, a three-dimensional transportation network extending in all directions of the city has basically taken shape.

3.3. Current Situation of Road Traffic Congestion

1) Road Traffic congestion at fixed time

points In the rush hours of commuting, school and school, there is frequent traffic congestion in the sections close to schools and office places.

2) Traffic congestion caused by special weather

The influence of the environment on the traffic situation is natural and huge. With unpredictability and randomness, if it encounters light rain, it is likely to lead to slippery roads, affecting the speed of pedestrians and two-wheelers, and it is easy to cause traffic accidents, once there is a traffic accident, it will aggravate traffic congestion. If there is heavy rain, most people choose to travel by car. Due to the old drainage system in many places in the urban area and the limitations of drainage facilities, it is easy to lead to flooding and waterlogging, which makes the road traffic congestion more serious. If it is in winter, due to factors such as climate and terrain, the snow on the road is difficult to melt, and ice accumulates on the road surface, making it difficult for drivers to drive. For safety reasons, the speed will be reduced, which to some extent reduces traffic efficiency.

3.4. Analysis of the causes of traffic congestion

1) Uneven distribution of traffic flow

As the earliest development area of Gannan Prefecture, it is also the pivot point of seven counties, carrying 80% of commercial and urban functions, covering most of the medical and health care, education, administrative organs and commercial facilities of Gannan Prefecture. It is densely populated with many vehicles, and the regional traffic condition is very bad. The main outstanding performance is as follows: first, the location is relatively fixed, and traffic jams mostly occur in traffic arteries, commercial centers, traffic light dense areas and near schools; The second is the rule of time, morning, middle and evening and school, school and other time periods, in large activity days, holidays, the traffic flow on urban roads is more than usual; In addition, there are not many road entrances and exits on urban roads, resulting in a relatively concentrated commute of various types of cars on urban roads, which makes traffic jams on urban roads more serious in a certain period of time.

2) The powers and responsibilities of various departments are unclear, and traffic supervision is absent

To control urban traffic congestion effectively, a sound management system must be established. First, there should be complete rules and sound supervision system. At present, the cooperative municipal government is both the decision-making subject and the implementation subject. It is both the athlete and the referee, and supervision and implementation are the same subject. Only in order to effectively restrict the dark scenes in the bidding, design, construction, management and other links, and put an end to corruption. At present, the traffic management system of cooperative urban areas is jointly responsible by the traffic Bureau, the traffic police force

and the integrated law enforcement Bureau, and the cross-management of the three departments leads to the unclear division of labor and the decentralization of management power. The unclear powers and responsibilities of various departments and the absence of traffic supervision have led to the difficulty of management and the decline of efficiency. There is no effective communication and coordination mechanism, resulting in the omission and overlap of work functions, resulting in the increase of management costs, and three monks have no water to drink. For the "Chinese style of crossing the road", due to unclear responsibilities, the traffic police are also open to one eye, close one eye. From the essence of people, public management should be the management of people, rather than the starting point of management, people are the first priority of public management, let the policy deeply rooted in the people, only the system is really serving the people, the people will seriously abide by the traffic rules.

3) Lagging transportation planning and slow development of public transportation

Due to the influence of time and terrain, the urban planning of the old city of the cooperative city was a little backward compared with the current concept. First, the traffic design planning was formed a long time ago, and there was no professional talent at that time, and it was designed according to the terrain. At present, although the boundaries of motor vehicles and non-motor vehicles are set up in the urban area of the cooperative city, due to the narrow road, the main road only has two lanes, and the phenomenon of people and vehicles mixing is serious, and there are serious safety accidents, especially in the morning and evening peak hours, from the Education Bureau to the Xinhua Bookstore on the secondary road. At that time, the design concept could only meet the number of vehicles and the flow of people at that time. Now, whether it is the number of people or the number of vehicles, it is far more than the time when the road was designed, and the community, shopping malls, hospitals and administrative units did not reserve enough positions or set up underground parking Spaces.

Because the cooperative city is located in the western region of China, the economic development is relatively late, and the development of urban public transport is not paid attention to until after the economic development. Generally speaking, the time and concept are relatively backward.

4) Low public participation

Due to the influence of the social management model of "big government and small society" in the past, the grassroots people habitually only look at the results and do not participate in the decision-making process, which leads to traffic congestion in urban areas, management departments in unilateral governance, did not hear the real opinions of the masses, and did not fulfill their responsibilities for the masses. Traffic congestion supervision and reporting should be regarded as daily behaviors in traffic congestion management.

5) Lack of awareness of traffic civilization rules

One is the problem of car drivers, some private cars, taxis, buses in order to save time, continuously change roads, rob roads, drive on the road to pick up phone calls, wait for the red light with mobile phones, and even do not obey traffic rules. This is the main cause of traffic jams and frequent traffic accidents. Secondly, the problem of non-motor vehicle drivers, the urban control of motorcycles, electric vehicles, bicycles is not enough, driving without a license, running red lights, riding motorcycles without helmets, violating the overload speed, and often driving in the reverse direction of non-motor vehicles on the motor road, which seriously affects the efficiency of vehicle use, aggravates traffic congestion, and seriously causes personal injury and death. In general, although in recent years, people's understanding of traffic safety has been greatly improved, but some pedestrians across the traffic barrier, not in the designated location at will to stop a taxi and other obvious traffic violations are still very serious, which has caused great difficulties in the management of traffic congestion.

4. Strategy Research on Traffic congestion in ethnic areas

4.1. Research on congestion strategy from the perspective of new public management theory

The new public administration theory has a very important guiding significance for improving urban traffic congestion in ethnic areas of our country, in order to alleviate the traffic congestion, we can start from the following points:

1) Customer-oriented, pursue the new value concept of customer first

Continue to meet the actual needs of the people for road traffic safety as the starting point and goal of the government to carry out road safety management, adhere to the service orientation, centered on the "satisfaction" of the masses, to ensure that the road safety management mechanism is in line with the preferences of the people. At the same time, through the "customer" drive, the government's road safety management work is coordinated to continue to provide high-quality and efficient public services to the community.

2) Government functions are transformed from "paddling" to "steering", separating management from specific operations

By improving the road traffic safety system, the Government should continuously provide various feasible and favorable opportunities for units at all levels, the private sector and the public to participate in the improvement of the road traffic system, so that they can "paddle" the work of alleviating road traffic congestion.

3) Implement clear performance target control

On the basis of the reasonable division of the government and the organization's necessary responsibilities for alleviating road traffic congestion, it is also necessary to clarify the specific goals of each link in the management work. At the same time, greater emphasis should be placed on the efficiency and quality of government departments providing regulatory services directly, and proactive, flexible, low-cost,

and effective responses should be made to changes in external conditions and different interest demands.

4) Pay more attention to improving the efficiency and quality of public services, and strictly control the cost of public administration

The government should actively establish the concept of competition, fully introduce the market competition mechanism in all aspects of road control, and seek survival, quality and efficiency through competition, so as to achieve cost savings.

4.2. Specific strategy research

1) Improve the current situation of urban road traffic and strengthen the design of street slow traffic space

Through the construction of "people-oriented" traffic system, strengthen the design of street slow traffic space, and build a safe, leisurely and intelligent slow traffic system. Combined with the TOD development mode of rail transit, the underground space of public buildings on both sides of the road is connected with the station as the node and the line as the axis, the underground walking network is constructed, and the smart street crossing system is actively added. Through traffic control, local roads form a one-way cycle to realize the reallocation of road space. One way circulation road, compress the lane width, set the excess road space for roadside parking Spaces or bicycle lanes. By increasing the proportion of parking Spaces and setting up small and scattered public parking lots, the service level of traffic facilities in the area can be effectively improved. By strengthening the connection between the station and the surrounding area's green space, open space and public service facilities, the purpose of road optimization and street renewal can be achieved.

2) Improve the internal traffic situation of the community, and advocate passenger-vehicle branch

For the micro update of parking Spaces should pay attention to reasonable distribution, set up multi-functional parking Spaces, need to have ecological, barrier-free, invisible functions in front of the building. Reduce the phenomenon of mixed parking of cars and bicycles, carry out parking space planning and grass-roots management, reduce the phenomenon of indiscriminate parking, and increase the utilization rate of outdoor space. When the residential area cannot meet the parking demand, the parking concept of shared parking space is proposed, private resources are utilized at low cost, affordable parking Spaces around the community are used together with parking Spaces in the community, and underground parking Spaces are set up. This can relieve the parking pressure inside the community, liberate some residents' activity space, improve the quality of activities, and reduce the phenomenon of indiscriminate parking in the community. At the same time, combined with the property management of the community, it is advocated to renovate and re-decorate the aging road pavement in the community to improve the guidance and space feeling of the road system. In terms of management, intelligent community vehicle management system can be introduced for orderly management,

strengthen the public security management of parking places, and manage the parking lot well is also conducive to promoting neighborhood coexistence and coordinating resident conflicts. The introduction of intelligent system can improve management efficiency, save a lot of human resources, and build a smart and harmonious community.

3) Formulate scientific strategic planning for transportation development

The development strategy of urban transportation in cooperative cities should mainly include the following four points: First, long-term consideration, practical starting, concrete planning, transformation and upgrading of urban functional areas; The second is to meet the necessary flow of people and goods, and promote each other with industrial development and regional functions; Third, the transportation mode should have the characteristics of high efficiency and environmental protection, and carry the rapid development of economy and society at the smallest cost; Fourth, it has the ability to adapt to a variety of transportation needs and reflect social equity. The development law of the transportation industry is deeply explored, and feasible suggestions are put forward to accelerate the network construction, optimize the development plan, and effectively improve the quality of public transportation service. In the new era, traffic congestion and congestion control have also shown new development trends and characteristics with the progress of society, emphasizing the importance of strategy more.

4) All people should participate and advocate the concept of healthy travel

First, establish rules and regulations, and effectively strengthen the publicity of traffic laws and regulations. The masses must first have a systematic understanding of road traffic laws and regulations in order to enhance their awareness of participating in traffic management. Second, we will increase the enthusiasm of the public to participate in the fight against congestion. First of all, the government and the public are the main bodies of local traffic governance. It is the duty and obligation of every citizen to mobilize their enthusiasm for the city's traffic congestion governance, enhance the hero's consciousness, actively understand the traffic laws and regulations, and actively participate in the traffic congestion governance work. Second, people's feedback should be fully taken into account when formulating policies and plans. Through the punishment of violations of laws and regulations, it will greatly improve the enthusiasm of citizens to participate in the management of congestion, and effectively alleviate traffic jams.

5. Conclusion

This paper takes the case of traffic congestion management in Hehe City of Gannan Prefecture as an example. Through literature reading and data collection, it analyzes that traffic congestion in urban areas is mainly caused by fixed time points, fixed roads, and special weather. The outstanding performance is the uneven distribution of traffic flow, the unclear rights and responsibilities of various departments, the

absence of traffic supervision, the delay of traffic planning, the slow development of public transportation, the low public participation, the lack of awareness of traffic civilization rules and other causes of traffic congestion. Drawing on advanced governance experience at home and abroad, this paper puts forward countermeasures and suggestions to improve traffic congestion governance in cooperative cities from multiple perspectives, such as improving traffic efficiency, national participation, and advocating the concept of healthy travel, in order to improve its promotion value in similar areas.

References

- [1] Lei Yang, Huang Chengfeng. Research review and suggestions on urban traffic congestion management [J]. Integrated Transport, 2018, 40(04): 8-11+42.
- [2] Yang Huihui. Research on short-term traffic flow prediction method of urban road [J]. Henan Science and Technology, 2018(26): 120-121.
- [3] Wang Zhi-feng, Liu Yajie. Research on the status quo and development strategy of Intelligent Transportation system [A]. China Intelligent Transportation Association. Science and Technology Proceedings of the 15th China Intelligent Transportation Annual Conference (2) [C]. Intelligent Transportation Association of China: Intelligent Transportation Association of China, 2020: 387-392.
- [4] Wu Hao. The composition and application of Intelligent Transportation System (ITS) on expressway [J]. Low carbon World, 2018, (02): 243-244.
- [5] Wang Lu. Intelligent transportation and its development under the Traffic control boom [J]. Economic and Trade Practice, 2018, (10): 258.
- [6] Zou Zhe, Zhou Jinsong. Building a new concept of TOD for the 21st Century [J]. City, 2005(04): 42-44.
- [7] Huang Weimin. Sustainable Development of Urban Transportation under the concept of TOD. People's Forum, 2016, (05): 171-173.
- [8] Liang X. Research on countermeasures to alleviate urban road traffic congestion -- A case study of Zhuji City [J]. Urban Architecture and Architecture, 2013, (04): 268+274.
- [9] Xie Qingchao. Research on traffic congestion problem and countermeasures in Gusu District, Suzhou [J]. Urban Architecture, 2022, 19(12): 27-31.
- [10] Huang Lishan. Analysis of causes and countermeasures of traffic congestion in Huaihua City [J]. Western Transportation Science and Technology, 2021, (09): 179-181.